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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,260	12/18/2001	John C. Opfer	SC-5325	6090
24275	7590	09/12/2005	EXAMINER	
James V. Lapacek S & C Electric Co. 6601 N. Ridge Blvd. Chicago, IL 60626			KYLE, MICHAEL J	
			ART UNIT	PAPER NUMBER
			3677	

DATE MAILED: 09/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/017,260

Applicant(s)

OPFER ET AL.

Examiner

Michael J. Kyle

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 4-6 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,4-6 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flory (U.S. Patent No. 4,361,165) in view of Wood (U.S. Patent No. 1,778,477). With respect to claims 1 and 7, Flory discloses a pressure relief arrangement comprising a sealing member (92) between two housing portions (12, 14), fastening means (54, 58) for applying compressive sealing force between the two housing portions, and rupture disc member means (52, 40a, 40b) operative with the fastening means and independent of the sealing member, such that the fastening means applies the compressive sealing force between the two housing portions solely through the rupture disc member means (52, 40a, 40b). The rupture disc member means comprise at least one member (52) loaded in shear and becoming disintegral in response to overpressure exceeding a predetermined value. Examiner asserts that Flory discloses the rupture disc member means to comprise a plurality of rupture disc members (52) having predetermined portions of reduced cross section because considers each pin (52) to be a rupture disc member. Each of these pins (52) has a reduced cross section when compared to an outer end portion of the pin. However, to more clearly show this feature, examiner further relies on the teachings of Wood.

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3. Wood teaches a disc-shaped member (15) with predetermined, circumferentially arranged portions of reduced cross section (16). Wood uses the portions of reduced cross section (16) to concentrate strain, and in turn stress, to a predetermined point on the shear pin to control where failure is to occur, so as not to damage other parts of the machine (page 1, lines 1-11). It would have been obvious to one having ordinary skill in the art at the time of the invention to include the portions of reduced cross section shown by Wood on the pin, or disc shaped member of Flory, in order to allow failure at a predetermined area of the disc shaped member. The portions of reduced area of Wood will also provide consistent failure results at a known stress value.

4. With respect to claim 4, the combination of Flory and Wood discloses the fastening means (54, 58) and rupture disc members (52) are dimensioned and assembled to focus applied forces in a predetermined manner to the rupture disc members.

5. With respect to claims 5 and 6, Flory discloses the fastening means to include bushing means (54) for focusing applied forces to the rupture disc member means. The fastening means further comprises alignment disc means (42 and the axial through hole in flange 50) for aligning the first, second, and bushing means.

### ***Response to Arguments***

6. Applicant's arguments filed June 20, 2005 have been fully considered but they are not persuasive. Applicant argues that examiner has not established any basis for a proposed combination of shear pins as being suggestive of rupture disc members. Examiner respectfully disagrees. The shear pins of Flory meet all the claimed structural limitations of applicant's rupture disc, except for the portion having reduced cross section. This feature is taught by

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Wood. Absent of any further structural limitations describing the rupture disc, such as it's orientation, properties, and position relative to other elements, The pin of Flory meets the limitations of claims as addressed above.

7. Applicant questions what suggestion there is in Flory to use elements of reduced cross section. Examiner notes the suggestion comes not from Flory, but from the teaching reference, Wood. Wood shows portion of reduced cross section, an elements the fail in shear, similar to Flory, to control where failure is to occur, so as not to damage other parts of the machine (Wood, page 1, lines 1-11). One having ordinary skill in the art would recognize that implementing an area of reduced cross section creates a stress concentration, and a weakened point on the pin, so when the pin fails, it fails predictably, and prevents damage to other parts of the machine.

### *Conclusion*

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

9. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Kyle whose telephone number is 571-272-7057. The examiner can normally be reached on Monday - Friday, 8:30 am - 5:00 pm.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mk

  
ROBERT J. SANDY  
PRIMARY EXAMINER